UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,263	02/07/2002	Jean-Michel Caia	10559-697001 / P13306	9185

			EXAMINER
20985	7590	11/15/2006	TRAN, PHUC H

FISH & RICHARDSON, PC
P.O. BOX 1022
MINNEAPOLIS, MN· 55440-1022

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>31 August 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,2,4-13 and 15-40</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,2,9-13,20-25,31-34,36-38 and 40</u> is/are rejected.

7)☒ Claim(s) <u>4-8,15-19,26-30,35 and 39</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities:

In claims 8, 19, and 30 contain subject matter such as "shifting the first bit" which was

not described in the specification in such a way as to reasonably convey to one skilled in the

relevant art that the inventor(s), at the time the application was filed, had possession of the

claimed invention.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1-2, 9-13, 20-24 and 31-34,36-38 and 40 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Shim (U.S. Patent No. 6876630 B1) in view of Susset (U.S. Patent No.

3940563).

- With respect to claims 1, 12, and 23, Shim teaches a method of processing frames of

data comprised of frameword bytes and a payload (e.g. the SONET frame), comprising:

receiving data for a first frame (e.g. incoming data in Fig. 1); identifying a start of a first frame

and of a phase first frame concurrently based on frameword bytes, wherein the phase of the first

frame is identified based on a location of the start of the first frame in one of the N registers (e.g.

block 120 in Fig. 2, see col. 10, lines 38-67); and aligning data in a second frame, based on the

phase of the first frame, to make a start of the second frame coincide with a start of a byte

boundary (e.g. block 150 in Fig. 2, see col. 12, lines 7-25).

Shim fails to teach the registers for storing data. Susset teaches the frame bit register

(e.g. block 10 in Fig. 2) for storing incoming data. Therefore, it would have been obvious to a

person of ordinary skill in the art at the time of the invention was made to input the register of

Susset into detecting (block 120 in Fig. 2 of Shim) for storing incoming data.

- With respect to claims 2, 13, and 24, Shim teaches wherein the frameword bytes

identify the start of the first frame (e.g. FAS values in Fig. 4 and col. 10, lines 38-41).

- With respect to claims 9, 20 and 31, Shim further comprises dividing the data for the

first and second frames into blocks (e.g. subframe unit 331 in Fig. 8, see col. 4, lines 60-65);

wherein the start of the first frame and the phase of the first frame are identified in one or the

blocks and aligning is performed on the second frame (e.g. Fig. 1D shows the FA).

- With respect to claims 10, 21 and 32, Shim further teaches identifying a predetermined

number of frames following identifying the start of the first frame and the phase of the first

frame (col. 8, lines 31-34); wherein aligning is performed on the second frame after identifying

the predetermined number of frames (e.g. Frame Alignment Unit 150 performs as resulted from

counter 140 in Fig. 4).

- With respect to claims 11, and 22, Shim teaches wherein the start of the byte boundary

comprises a start of a word boundary (e.g. the binary frame is determined as FA (Hex) in Fig. 1).

- With respect to claims 33 and 37, Shim teaches a method of processing frames of data, comprising

receiving data for a first frame (e.g. incoming data in Fig. 1); dividing the data for the first frame into blocks (e.g. subframe unit 331 in Fig. 8, see col. 4, lines 60-65);

identifying a start of the first frame and a phase of the first frame based on the phases of the blocks determined by the multiple comparators (e.g. block 120 in Fig. 2, see col. 10, lines 38-67); and

aligning data in a second frame of data, based on the phase of the first frame, to make a start of the second frame coincide with a start of a byte boundary (e.g. block 150 in Fig. 2, see col. 12, lines 7-25). Shim fails to teach groups of registers to store blocks of a first frame, each group of registers for storing blocks that are non-consecutive in the first frame; a plurality of comparators to analyze the blocks of the first frame, each comparator for determining a phase of the blocks stored in one group of registers.

Susset teaches the frame bit register (e.g. block 10 in Fig. 2) for storing incoming data, and comparators (block 14 in Fig. 2) for comparing incoming data. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to input the register and comparators of Susset into detecting (block 120 in Fig. 2 of Shim) to store and compare incoming data for reframing data.

- With respect to claims 34 and 38, wherein using multiple comparators to analyze the blocks comprises using multiple comparators to analyze the blocks in parallel.

- With respect to claims 36 and 40, Shim discloses wherein the frames of data comply

with at least one of Synchronous Optical Networking and Synchronous Digital Hierarchy

standards (col. 1, lines 28-35).

Allowable Subject Matter

4.   Claims 4-8,15-19, 26-30, 35 and 39 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

Response to Amendment

5.   Applicant's arguments with respect to claims 1-2, 9-13, 20-24 and 31-34,36-38 and 40

have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Colton et al. (U.S. Patent No. 3985967) discloses common control constant shift reframe

circuit.

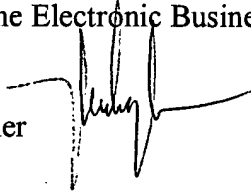Takahashi (Pub. No. 2001/0008550 A1) disclose frame synchronization detecting circuit.

7.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172.
The examiner can normally be reached on M-F (8-4:30).
        If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, CHI PHAM can be reached on (571) 272-3179. The fax phone number for the
organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system. Status information for published applications
may be obtained from either Private PAIR or Public PAIR. Status information for unpublished
applications is available through Private PAIR only. For more information about the PAIR
system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR
system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuc Tran
Assistant Examiner
Art Unit 2664

P.t
11/13/06